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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,575	11/19/2003	Robert D. Galli	E001 P00759-US2	6282
3017	7590	08/25/2004	EXAMINER	
BARLOW, JOSEPHS & HOLMES, LTD. 101 DYER STREET 5TH FLOOR PROVIDENCE, RI 02903			HAN, JASON	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/716,575	<b>Applicant(s)</b> GALLI, ROBERT D.	
	<b>Examiner</b> Jason M Han	<b>Art Unit</b> 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: Page 9, Paragraph 19, Line 3: grammatical error – please correct to read as “is slightly larger”.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Matthews (U.S. Patent Number 5629105).
3. With regards to Claim 1, Matthew discloses an electrically insulating outer plunger [Figures 1, 2, 5, and 6: (16); Column 5, Lines 28-60] wherein there is an inside cavity which further comprises of an end wall [Figures 1, 2, and 5: (52)-(54)] with an aperture [Figures 1, 2, and 5: (56)]; an electrically conductive inner plunger [Figure 1, 2, and 5: (17); Column 5, Line 66 – Column 6, Line 5] received in the inner cavity of said outer plunger and adjacent said aperture; a power source [Figures 1, 2, and 5: (11)] having a first contact end [Figures 1, 2, and 5: (111)] that is smaller than said aperture in said outer plunger, and a second contact end that is larger than said aperture in said outer plunger [Figures 1 and 2: (211)]; and whereby first contact end of said power source is capable of extending through said aperture to make electrical contact with

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said inner plunger and said second end of said power source cannot extend through said aperture [Figures 1, 2, and 5: (18); Claims 29 and 50].

Although the present invention does not disclose a reflector within the inner plunger as shown in Matthews, the head assemblies of the two embodiments are considered functionally equivalent with regards to an electrical contact assembly. The present claim lacks any novelty within the art, whereby electrical contact assemblies have been found to incorporate a similar embodiment for preventing reverse polarity contact.

4. With regards to Claim 2, Matthews discloses a power source with a direct current output voltage [Figures 1, 2, and 5: (11)], and having a positive terminal [Figures 1, 2, and 5: (111)] and negative terminal [Figures 1 and 2: (211)].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews as applied to Claim 1 above, and further in view of Berg et al.

Matthews discloses an electrical contact assembly as described in Paragraph 3 above.

Matthews does not specifically disclose said power source as a single cell battery of a type selected from the group consisting of: AAA, AA, C and D.

Berg discloses, "There are numerous types of primary (non-rechargeable) and secondary (rechargeable) dry cell batteries. Dry cell batteries are commercially available in a number of well-known sizes and configurations such as the standardized AAA, AA, C and D battery sizes [Page 1, Paragraph 5; underline added by examiner]."

It is obvious to those skilled in the art that the batteries commonly used in flashlights incorporate AAA, AA, C and D sizes, such as taught by Berg, which may be further incorporated into the electrical assembly of Matthews.

6. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews as applied to Claim 1 above, and further in view of Bowman et al. (Publication Number: US 2003/0076051 A1).

With regards to Claim 4, Matthews discloses an electrical contact assembly as described in Paragraph 3 above, wherein an electrical communication exists [electrical transducer energizing circuit – Figures 1-5: (20)] between the inner plunger [Figure 1, 2, and 5: (17)], power source [Figures 1-5: (11)], and electric transducer(s) [Figures 1-5: (12)-(13); see also Abstract].

Matthews does not specifically disclose an electrical contact assembly comprising a circuit board having an electrical contact in electrical communication with said inner plunger, which may be associated with light-emitting diodes found in flashlights.

Bowman discloses a light-emitting diode module [Figures 3A, 3B, and 4: (301)] comprising a circuit board [Figures 3A and 3B: (302)] with electrical contacts [Figures 3A and 3B: (305)], wherein said circuit board has circuitry thereon [Page 5, Paragraphs

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43-49], and said circuitry being subject to damage from application of direct current in reverse polarity [Claim 10].

It would have been obvious to modify Matthews' electrical contact assembly with the light-emitting diode module of Bowman, so as to provide greater illumination. To quote Matthews, "Apparatus within the scope of the invention include flashlights, laser pointers, electrically powered tools, and other devices. Accordingly, the transducer may include one or more light bulbs 12 and/or 13, laser diodes or other battery energized light sources, electric screw drivers or other torque converters, or other electric actuated tools [Column 4, Lines 27-33]." In addition, Bowman corroborates motivation, "As the technology of LEDs has progressed, leading to increased brightness, the practicality of using LEDs for general illumination and in particular for flashlights has improved [Column 1, Paragraph 3]."

7. With regards to Claim 5, Bowman discloses a voltage step-up circuit [Figures 1 and 2].

8. With regards to Claim 6, Bowman discloses a light-emitting diode mounted on said circuit board [Figures 3A and 3B: (102a-n)-(103)]. It is also inherent that an LED will have an activation threshold (white LEDs range from 3.5V-4.0V) that is greater than the voltage output of a typical 1.5V battery cell [Column 1, Paragraph 3].

9. Claims 7 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews in view of Bowman.

10. With regards to Claim 7, Matthews discloses a direct power source [Figures 1, 2, and 5: (11)] having a positive contact end [Figures 1, 2, and 5: (111)] and negative

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contact end [Figures 1 and 2: (211)], wherein said positive contact end is smaller than said negative contact end; a plunger assembly, adjacent said power source, comprising of an electrically insulating outer plunger [Figures 1, 2, 5, and 6: (16); Column 5, Lines 28-60] wherein there is an inside cavity which further comprises of an end wall [Figures 1, 2, and 5: (52)-(54)] with an aperture [Figures 1, 2, and 5: (56)], and an electrically conductive inner plunger [Figure 1, 2, and 5: (17); Column 5, Line 66 – Column 6, Line 5] received in the inner cavity of said outer plunger and adjacent said aperture; and whereby said positive contact end is capable of extending through said aperture to make electrical contact with said inner plunger and said negative contact end cannot extend through said aperture [Figures 1, 2, and 5: (18); Claims 29 and 50].

Matthews does not specifically disclose an electrical contact assembly comprising a circuit board having an electrical contact in electrical communication with said inner plunger, which may be associated with light-emitting diodes found in flashlights.

Bowman discloses a light-emitting diode module [Figures 3A, 3B, and 4: (301)] comprising a circuit board [Figures 3A and 3B: (302)] with electrical contacts [Figures 3A and 3B: (305)], wherein said circuit board has circuitry thereon [Page 5, Paragraphs 43-49].

It would have been obvious to modify Matthews' electrical contact assembly with the light-emitting diode module of Bowman, so as to provide greater illumination. To quote Matthews, "Apparatus within the scope of the invention include flashlights, laser pointers, electrically powered tools, and other devices. Accordingly, the transducer may

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include one or more light bulbs 12 and/or 13, laser diodes or other battery energized light sources, electric screw drivers or other torque converters, or other electric actuated tools [Column 4, Lines 27-33].” In addition, Bowman corroborates motivation, “As the technology of LEDs has progressed, leading to increased brightness, the practicality of using LEDs for general illumination and in particular for flashlights has improved [Column 1, Paragraph 3].”

11. With regards to Claim 9, Bowman discloses a voltage step-up circuit [Figures 1 and 2], whereby said circuitry is subject to damage from application of direct current in reverse polarity [Claim 10].

12. With regards to Claim 10, Bowman discloses a light-emitting diode mounted on said circuit board [Figures 3A and 3B: (102a-n)-(103)]. It is also inherent that an LED will have an activation threshold (white LEDs range from 3.5V-4.0V) that is greater than the voltage output of a typical 1.5V battery cell [Column 1, Paragraph 3].

13. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews as applied to Claim 7 above, and further in view of Berg et al.

Matthews discloses an electrical contact assembly as described in Paragraph 10 above.

Matthews does not specifically disclose said power source as a single cell battery of a type selected from the group consisting of: AAA, AA, C and D.

Berg discloses, “There are numerous types of primary (non-rechargeable) and secondary (rechargeable) dry cell batteries. Dry cell batteries are commercially



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available in a number of well-known sizes and configurations such as the standardized AAA, AA, C and D battery sizes [Page 1, Paragraph 5].”

It is obvious to those skilled in the art that the batteries commonly used in flashlights incorporate AAA, AA, C and D sizes, such as taught by Berg, which may be further incorporated into the electrical assembly of Matthews.

14. Claims 11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews in view of Bowman.

15. With regards to Claim 11, Matthews discloses a flashlight housing [Figures 1, 2, and 5: (16)] having a first end [Figures 1, 2, and 5: (30)] and a second end [Figures 1 and 2: (132)]; a battery [Figures 1, 2, and 5: (11)] received in said second end having a positive contact end [Figures 1, 2, and 5: (111)] and a negative contact end [Figures 1 and 2: (211)], wherein said positive contact end is smaller than said negative contact end; a plunger assembly, adjacent said battery, comprising of an electrically insulating outer plunger [Figures 1, 2, 5, and 6: (16); Column 5, Lines 28-60] wherein there is an inside cavity which further comprises of an end wall [Figures 1, 2, and 5: (52)-(54)] with an aperture [Figures 1, 2, and 5: (56)], and an electrically conductive inner plunger [Figure 1, 2, and 5: (17); Column 5, Line 66 – Column 6, Line 5] received in the inner cavity of said outer plunger and adjacent said aperture; whereby said positive contact end is capable of extending through said aperture to make electrical contact with said inner plunger and said negative contact end cannot extend through said aperture [Figures 1, 2, and 5: (18); Claims 29 and 50]; and a means for selectively energizing said circuitry for a lighting element [see Abstract].

Matthews does not specifically disclose a flashlight assembly comprising a circuit board having an electrical contact in electrical communication with said inner plunger, and a lighting element mounted on said circuit board.

Bowman discloses a light element [Figures 3A, 3B, and 4: (301)] comprising a circuit board [Figures 3A and 3B: (302)] with electrical contacts [Figures 3A and 3B: (305)], wherein said circuit board has circuitry thereon [Page 5, Paragraphs 43-49], and whereby a light-emitting diode is mounted on said circuit board [Figures 3A and 3B: (102a-n)-(103)].

It would have been obvious to modify Matthews' flashlight assembly with the light-emitting diode module of Bowman, so as to provide greater illumination. To quote Matthews, "Apparatus within the scope of the invention include flashlights, laser pointers, electrically powered tools, and other devices. Accordingly, the transducer may include one or more light bulbs 12 and/or 13, laser diodes or other battery energized light sources, electric screw drivers or other torque converters, or other electric actuated tools [Column 4, Lines 27-33]." In addition, Bowman corroborates motivation, "As the technology of LEDs has progressed, leading to increased brightness, the practicality of using LEDs for general illumination and in particular for flashlights has improved [Column 1, Paragraph 3]."

16. With regards to Claim 13, Bowman discloses a light-emitting diode mounted on said circuit board [Figures 3A and 3B: (102a-n)-(103)]. It is also inherent that an LED will have an activation threshold (white LEDs range from 3.5V-4.0V) that is greater than the voltage output of a typical 1.5V battery cell [Column 1, Paragraph 3].

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17. With regard to Claims 14 and 15, Bowman discloses a voltage step-up circuit [Figures 1 and 2], whereby said circuitry is subject to damage from application of direct current in reverse polarity [Claim 10].

18. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews as applied to Claim 11 above, and further in view of Berg et al.

Matthews discloses an electrical contact assembly as described in Paragraph 15 above.

Matthews does not specifically disclose said power source as a single cell battery of a type selected from the group consisting of: AAA, AA, C and D.

Berg discloses, "There are numerous types of primary (non-rechargeable) and secondary (rechargeable) dry cell batteries. Dry cell batteries are commercially available in a number of well-known sizes and configurations such as the standardized AAA, AA, C and D battery sizes [Page 1, Paragraph 5]."

It is obvious to those skilled in the art that the batteries commonly used in flashlights incorporate AAA, AA, C and D sizes, such as taught by Berg, which may be further incorporated into the electrical assembly of Matthews.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to the current application:

U.S. Publication No. 2003/0077937 to Berg et al;

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U.S. Patent No. 4325107 to MacLeod;

U.S. Patent No. 5528472 to Maglica et al.;

U.S. Patent No. 6347878 to Shiao;

U.S. Patent No. 6513947 to Huang;

U.S. Patent No. 5117341 to Huang;

U.S. Patent No. 6283611 to Sharrah et al.;

U.S. Patent No. 6074072 to Parsons et al.;

U.S. Patent No. 6296367 to Parsons et al.;

U.S. Patent No. 5954420 to Smith;

U.S. Patent No. 5167447 to Gonzales.

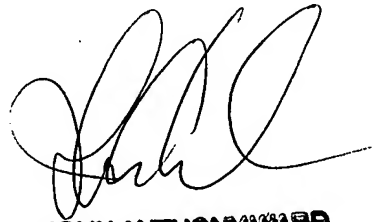
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Han whose telephone number is (571) 272-2207. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMH



**JOHN ANTHONY WARD**  
**PRIMARY EXAMINER**